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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,082	08/09/2005	Jean-Pierre Moy	62843(4590-358)	2893
33308	7590	08/08/2006	EXAMINER	
LOWE HAUPTMAN GILMAN & BERNER, LLP 1700 DIAGNOSTIC ROAD, SUITE 300 ALEXANDRIA, VA 22314			PEACE, RHONDA S	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/518,082	MOY ET AL.	
	Examiner	Art Unit	
	Rhonda S. Peace	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6, 10-16 and 18 is/are allowed.
- 6) ☒ Claim(s) 7-9 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/16/2004</u>  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Information Disclosure Statement*

The information disclosure statement (IDS) submitted on 12/16/200<sup>4</sup>~~5~~ was filed in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### *Claim Rejections - 35 USC § 103*

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

*Claims 7, 8, 9 and 17 are rejected under 35 U.S.C. 102(b) as being unpatentable over Pan (US 5706371).*

Pertaining to claims 7, 8, 9, and 17, Pan discloses an optical isolator array device wherein an optical component **13** between two optical fibers **25** furnished at their end with lenses **21** (column 2 lines 45-55, hereafter indicated as 2:45-55, 2:66-67, 3: 46-52, Figs 1 and 3). A support **10**, on which is fixed an array of capillary tubes **12** by the use of epoxy, has a blind cut **14** (a cut which does not penetrate the entire depth of the support) so as to separate the capillary tubes **12** such that they are aligned with one another, wherein the cut **14** is perpendicular to the longitudinal axis of the fibers **25** (within grooves **11**) and the optical component **13** is fixed with epoxy therein so as to be flush against one face of the cut **14** so that it is also perpendicular to the fiber **25** axis (2:64-67, 3:1, Fig 1). It is also noteworthy that Pan discloses the cut **14** may be non-perpendicular to the longitudinal axis of the fibers **25**, due to the desire to closely fit the

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cut dimensions with the dimensions of optical component **13** (3:19-27). Therefore, one of ordinary skill in the art would have found it obvious to fashion the cut so that the cut is perpendicular to the longitudinal axis of the fibers, as Pan has disclosed this option as one of two manners in which to fashion the cut. In addition, it is well known in the art to fashion a cut that is perpendicular to the longitudinal axis of an optical fiber. Another instance where such a cut is disclosed in prior art would be Cullen et al (US 5325456), and is mentioned herein only as an example of a perpendicular cut. Furthermore, as Pan discloses both perpendicular and non-perpendicular cuts (with reference to the optical fiber longitudinal axis), it would have been obvious to one of ordinary skill in the art to form a cut of any geometry, so that it closely fits the optical component disposed therebetween the fibers, including making the first cut perpendicular to the longitudinal fiber axis and the second cut at an acute angle with the first cut, as this orientation would fit, for example, a right-triangular shaped optical component.

***Allowable Subject Matter***

*Claims 1-6, 10-16, and 18 are allowed.*

The following is an examiner's statement of reasons for allowance: While the prior art discloses structures, such as Pan discussed above, which have similar structural features to the present invention, this applicable art does not disclose, nor does it reasonably suggest a *method* for creating such a device wherein the support is *drilled* so as to fix a *capillary tube* therein, the tube is fixed in the drilling of the support, a *blind* cut is made in the support in such a manner as to separate the capillary tubes,

and wherein the first plane face of the cut is *perpendicular* to the longitudinal axis of the capillary tube. Further, an optical component is then positioned *on the first plane face* of the cut, and an optical fiber is positioned in each of the capillary tubes.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

Applicant's arguments, see page 5, filed 6/21/2006, with respect to the objection of claims 6 and 13-16 have been fully considered and are persuasive. The objection of claims 6 and 13-16 has been withdrawn.

Applicant's arguments filed 6/21/2006 have been fully considered but they are not persuasive.

Applicant asserts, with reference to claim 7, the capillary tubes 12 of Pan are not aligned, citing Figures 5a and 5b as examples. The Examiner disagrees.

The capillary tubes of Pan are *optically aligned*, thereby allowing a light signal to propagate from one tube to the other through the intermediate element. This is precisely illustrated by Figures 5a and 5b.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

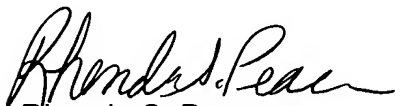
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda S. Peace whose telephone number is (571) 272-8580. The examiner can normally be reached on M-F (8-5).

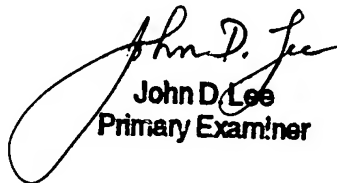
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272- 2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Rhonda S. Peace  
Examiner  
Art Unit 2874



John D. Lee  
Primary Examiner